

COMMON COMPLICATIONS OF DIABETIC RETINOPATHY IN ADULTS

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ABSTRACT

Diabetic retinopathy (DR) is a well-known and easily diagnosed chronic complication of the visual organs, which can be detected in almost all patients with diabetes mellitus (DM). There are currently 45 million blind people and 180 million with low vision in the world. Over the next 30 years, it is expected that the number of blind people will increase by 27% and people with low vision by 45%, respectively. DR is the most common cause of blindness among people of working age in most countries of the world.

Keywords: diabetic retinopathy, diabetes mellitus, treatment.

Diabetic retinopathy is a common eye complication in people suffering from diabetes mellitus. This is one of the leading causes of blindness in adults. Diabetic retinopathy is caused by changes in the blood vessels of the retina. If you have diabetic retinopathy, you may not always notice changes in vision in time, but after a certain period of time, this can lead to impaired visual acuity. Most often, pain or other symptoms are not observed, especially in the initial stages. Do not wait for the appearance of symptoms or deterioration of vision! Go to your ophthalmologist for regular checkups and, if necessary, use additional diagnostic methods.

The main danger of diabetes remains a huge number of complications, which leads to an unbalanced blood sugar level. Diagnosis and treatment of all types of diabetes complications associated with blood vessel damage is carried out by Israeli specialists using high-precision equipment that allows determining a specific type of pathology and choosing adequate treatment. Diabetes currently remains the third leading cause of death in developed countries of the world. More than 371 million people in the world have diabetes, and, according to the World Health Organization, at least half of this number of people simply do not know about their diagnosis.

The main danger of diabetes remains a huge number of complications, which leads to an unbalanced blood sugar level. Elevated blood sugar levels contribute to the appearance of formations in the blood arteries that cause hardening in the arteries and do not allow them to function normally, which leads to damage to both large arteries and small blood vessels. In turn, injuries to small blood vessels can lead to serious damage to the kidneys, eyes, and limbs. Diagnosis and treatment of all types of diabetes complications associated with blood vessel damage is carried out by Israeli specialists using high-precision equipment that allows to determine a specific type of pathology and choose an adequate treatment.

The most common complications of unbalanced diabetes, which are caused by damage to small blood vessels, include renal pathologies – in about 67% of cases. The most common type of such pathologies is diabetic nephropathy. Diabetes disrupts the normal functioning of the kidneys: protein, which is stored in the body during normal kidney function, begins to penetrate into the urine. Another type of damage to blood vessels caused by diabetes, in which peripheral elements of the nervous system are affected, is neuropathy. The main sign of neuropathy is the loss of the limbs of their sensitivity. In addition, diabetes can reduce blood flow to the legs and lead to

damage to sensitive nerves: such changes can lead to serious injuries and ulcers on the legs. Diabetic patients should carefully check their limbs daily and pay attention to the appearance of any skin damage – ulcers, blisters, redness.

Serious complications caused by unbalanced glucose levels include diabetic retinopathy, in which the retina of the eye is affected. The probability of the disease depends on the type of diabetes and the duration of the disease. Patients with type 1 diabetes should undergo a vision test starting from five years after diagnosis. This rule does not apply to people with vision problems, in this case, the examination of the retina and fundus is recommended to take place immediately after the detection of diabetes. With type 2 diabetes, the patient is required to undergo an eye examination immediately after diagnosis, since high blood glucose levels seriously affect the sensitivity of the eyes.

In the past, various complications that diabetes caused to the eyes were common for diabetics and often even led to blindness. Today, most of them can be prevented, especially if the problem was detected at an early stage. With more pronounced stages of DR, stabilization of the process was achieved in 75-82% of cases. Of these, 20% of patients have improved visual acuity, partial resorption of solid exudative foci, reduction of retinal edema, resorption of preretinal hemorrhages, partial desolation of newly formed vessels. For a long period of time, these patients manage to avoid disability associated with complications of diabetic retinopathy. One third of DM patients seek help when there are already gross changes in the retina and vitreous body on the fundus. In such cases, laser coagulation of the retina, vitrectomy (vitreous removal surgery, fibrous tissue) cannot be performed. Cryocoagulation is used in the ENC in order to preserve residual vision in patients with severe complications of diabetic retinopathy. Indications for transconjunctival and transcleral cryocoagulation with scleroplasty of the posterior pole of the eyeball are gross proliferative changes in the fundus, fresh vitreous hemorrhages and /or gross vitreoretinal traction with multiple newly formed vessels, when photocoagulation or vitrectomy is impossible due to the occurrence of a large percentage of complications. The developed cryocoagulation techniques in combination with laser coagulation of the retina, vitrectomy and scleroplasty of the posterior pole of the eyeball make it possible to stop the development of severe vascular changes in the organ of vision associated with diabetes mellitus. 1.5-2 months after cryocoagulation, 60% of patients have significantly! resorption of opacities in the vitreous improved visual acuity, in 44% — regression of fibrous tissue, desolation of newly formed nipples. Thanks to these interventions, patients were able to navigate in space and do without outside help.

CONCLUSION

Thus, a promising direction in the treatment of diabetic retinopathy remains the training of patients and doctors, achieving the highest possible degree of glucose and blood pressure control throughout the life of a patient with diabetes mellitus, providing patients with the most modern hypoglycemic drugs, including herbal preparations, means of self-control, mandatory and timely screening and monitoring of patients, development of new effective drugs and treatment methods.

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